



COPY

Sheet 1 of 3

FTO-1449 REPRODUCED

INFORMATION DISCLOSURE CITATION
IN AN APPLICATION

January 18, 2002

(Use several sheets if necessary)

ATTORNEY DOCKET NO.
2831.2003-000APPLICATION NO.
09/960,244APPLICANT
Tony W. Ho, et al.FILING DATE
Sept. 21, 2001GROUP
1633

U.S. PATENT DOCUMENTS

EXAM- INER INI- TIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE
VA	AA	5,061,620	Oct. 29, 1991	Tsukamoto, A. et al.	435	7.21	
	AB	5,197,985	Mar. 30, 1993	Caplan, A.I. et al.	623	16	
	AC	5,486,359	Jan. 23, 1996	Caplan, A.I. et al.	424	93.7	
	AD	5,591,625	Jan. 7, 1997	Gerson, S.L. et al.	435	240.2	
	AE	5,728,581	Mar 17, 1998	Schwartz, R.M. et al.	435	385	
	AF	5,736,396	Apr. 7, 1998	Bruder, S.P. et al.	435	366	
	AG	5,811,094	Sept. 22, 1998	Caplan, A.I. et al.	424	93.7	
	AH	5,942,225	Aug. 24, 1999	Bruder, S.P. et al.	424	93.7	
	AI	5,962,323	Oct. 5, 1999	Greenburger, J.S. et al.	435	384	
VA	AJ	6,184,035	Feb 6, 2001	Csete, M. et al.	435	377	

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO
VA	AL	WO 00/69448	23 Nov 2000	PCT			X
VA	AM	WO 01/78753	25 Oct 2001	PCT			X

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

VA	AR	Akiyomo, Y. et al., "Functional Repair of Demyelinated Spinal Cord Axons in the Adult Rat by Transplantation of Clonal Neural Stem Cells Derived From Adult Human Brain," <i>Society for Neuroscience Abstracts</i> 25: Abstract 86.9 (1999).
	AS	Azizi, S. A., et al., "Engraftment and migration of human bone marrow stromal cells implanted in the brains of albino rats-similarities to astrocyte grafts," <i>Proc. Natl. Acad. Sci. USA</i> 95: 3908-3913 (1998).
	AT	Azizi, S. A., "Exploiting Non-neural Cells to Rebuild the Nervous System: From Bone Marrow to Brain," <i>The Neuroscientist</i> 6(5): 353-361 (2000).
	AU	Bianco, P., et al., "Bone Marrow Stromal Stem Cells: Nature, Biology, and Potential Applications," <i>Stem Cells</i> 19: 180-192 (2001).
VA	AV	Chopp, M., et al., "Spinal cord injury in rat: treatment with bone marrow stromal cell transplantation," <i>NeuroReport</i> 11(13): 3001-3005 (2000).

EXAMINER

V. Afonso

DATE CONSIDERED

3-19-2004

PTO-1449 REPRODUCED

DEC 24 2003

ATTORNEY DOCKET NO.
2831.2003-096APPLICATION NO.
09/960,244INFORMATION DISCLOSURE CITATION
IN AN APPLICATION

January 18, 2002

(Use several sheets if necessary)

APPLICANT
Tony W. Ho et al.FILING DATE
Sept. 21, 2001GROUP
1633

U.S. PATENT DOCUMENTS

EXAM- INER INI- TIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

VA	AW	Colter, D. C. et al., "Rapid expansion of recycling stem cells in cultures of plastic-adherent cells from human bone marrow," <i>Proc. Natl. Acad. Sci. USA</i> 97(7): 3213-3218 (2000).
↑	AX	Coyle, A.J., et al., "Human Mesenchymal Stromal Cells Can Differentiate into Oligodendrocyte Lineage in Transplantation Experiments with MD Rats," <i>Soc. for Neurosci. Abs.</i> 26: Abstract 415.11 (2000).
	AY	Eglitis, M. A., et al., "Hematopoietic cells differentiate into both microglia and macroglia in the brains of adult mice," <i>Proc. Natl. Acad. Sci. USA</i> 94: 4080-4085 (1997).
	AZ	Ferrari, G., et al., "Muscle Regeneration by Bone Marrow-Derived Myogenic Progenitors," <i>Science</i> 279: 1528-1530 (1998).
	AR2	Himes, B. T. et al., "Grafting human bone marrow stromal cells into injured spinal cord of adult rats," <i>Society for Neuroscience Abstracts</i> 25: Abstract 86.11 (1999).
	AS2	Kopen, G. C., et al., "Marrow stromal cells migrate throughout forebrain and cerebellum, and they differentiate into astrocytes after injection into neonatal mouse brains," <i>Proc. Natl. Acad. Sci. USA</i> 96: 10711-10716 (1999).
	AT2	Li, J., et al., "Nontransformed colony-derived stromal cell lines from normal human marrows. II. Phenotypic characterization and differentiation pathway," <i>Experimental Hematology</i> 23: 133-141 (1995).
	AU2	Liechty, K. W., et al., "Human mesenchymal stem cells engraft and demonstrate site-specific differentiation after in utero transplantation in sheep," <i>Nature Medicine</i> 6(11): 1282-1286 (2000).
↓	AV2	Majumdar, M. K., et al., "Phenotypic and Functional Comparison of Cultures of Marrow-Derived Mesenchymal Stem Cells (MSCs) and Stromal Cells," <i>J. Cell. Phys.</i> 176: 57-66 (1998).
VA	AW2	Pereira, M. K., et al., "Cultured adherent cells from marrow can serve as long-lasting precursor cells for bone, cartilage, and lung in irradiated mice," <i>Proc. Natl. Acad. Sci. USA</i> 92: 4857-4861 (1995).

EXAMINER

V. Afrumola

DATE CONSIDERED

3-19-2004

PTO-1449 REPRODUCED

INFORMATION DISCLOSURE CITATION
IN AN APPLICATION

January 18, 2002

(Use several sheets if necessary)

COPY

ATTORNEY DOCKET NO.
2831.2003-000

APPLICATION NO.
09/960,244

APPLICANT
Tony W. Ho, et al.

FILING DATE
Sept. 21, 2001

GROUP
1633

U.S. PATENT DOCUMENTS

EXAM- INER INI- TIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

VA	AX2	Phinney, D. G., et al., "Donor Variation in the Growth Properties and Osteogenic Potential of Human Marrow Stromal Cells," <i>J. Cell. Biochem.</i> 75: 424-436 (1999).
	AY2	Phinney, D. G., et al., "Plastic Adherent Stromal Cells From the Bone Marrow of Commonly Used Strains of Inbred Mice: Variations in Yield, Growth, and Differentiation," <i>J. Cell. Biochem.</i> 72: 570-585 (1999).
	AZ2	Pittenger, M. F., et al., "Multilineage Potential of Adult Human Mesenchymal Stem Cells," <i>Science</i> 284: 143-147 (1999).
	AR3	Prockop, D. J., "Marrow Stromal Cells as Stem Cells for Nonhematopoietic Tissues," <i>Science</i> 276: 71-74 (1997).
	AS3	Roisen, F. J., et al., "Murine and Human Adult Olfactory Neuroepithelial Stem Cells," <i>Society for Neuroscience Abstracts</i> 26: Abstract 312.7 (2000).
	AT3	Sanchez-Ramos, J., et al., "Adult Bone Marrow Stromal Cells Differentiate into Neural Cells in Vitro," <i>Experimental Neurology</i> 164: 247-256 (2000).
	AU3	Sanchez-Ramos, J., et al., "Bone marrow stromal cells grafted into adult rat brain migrate, organize in architectonic patterns and express neuronal markers," <i>Neurology</i> 52(6 SUPPL. 2): A14, S06.001 (1999).
	AV3	Schwartz, E. J., et al., "Multipotential Marrow Stromal Cells Transduced to Produce L-DOPA: Engraftment in a Rat Model of Parkinson Disease," <i>Human Gene Therapy</i> 10: 2539-2549 (1999).
	AW3	Taupin, P., et al., "FGF-2-Responsive Neural Stem Cell Proliferation Requires CCg, a Novel Autocrine/Paracrine Cofactor," <i>Neuron</i> 28: 385-397 (2000).
	AX3	Woodbury, D., et al., "Adult Rat and Human Bone Marrow Stromal Cells Differentiate Into Neurons," <i>J. Neurosci. Res.</i> 61: 364-370 (2000).
VA	AY3	Woodbury, D., et al., "Adult Rat and Human Bone Marrow Stromal Cells Differentiate Into Neurons," <i>Society for Neuroscience Abstracts</i> 26: Abstract 312.9 (2000).

EXAMINER

V. Afronova

DATE CONSIDERED

3-15-2004

PTO-1449 REPRODUCED		ATTORNEY DOCKET NO. 2831.2003-000	APPLICATION NO. 09/960,244	
SUPPLEMENTAL INFORMATION DISCLOSURE CITATION IN AN APPLICATION November 6, 2003 (Use several sheets if necessary)		APPLICANT Tony W. Ho, <i>et al.</i>		
		FILING DATE September 21, 2001	CONFIRMATION NO. 4326	GROUP 1651

U.S. PATENT DOCUMENTS				
EXAM- INER INI- TIAL	REF. NO.	DOCUMENT NUMBER	ISSUE DATE / PUBLICATION DATE	NAME
	AA3			
	AB3			
	AC3			
	AD3			
	AE3			
VP	AF3	2001/0034061 A1	October 25, 2001	Csete, <i>et al.</i>
	AG3			
	AH3			
	AI3			
	AJ3			
	AK3			
	AA4			
	AB4			
	AC4			
	AD4			
	AE4			
	AF4			
	AG4			
	AH4			
	AI4			
	AJ4			
	AK4			
	AA5			
	AB5			
	AC5			

EXAMINER <i>V. Abramova</i>	DATE CONSIDERED <i>3-19-2004</i>
--------------------------------	-------------------------------------

PTO-1449 REPRODUCED

ATTORNEY DOCKET NO.
2831.2003-000

APPLICATION NO.
09/960,244

APPLICANT
Tony W. Ho, et al.

FILING DATE
September 21, 2001

CONFIRMATION NO.
4326

GROUP
1651

February 3, 2003
(Use several sheets if necessary)

U.S. PATENT DOCUMENTS

EXAM- INER INI- TIAL		DOCUMENT NUMBER	ISSUE DATE / PUBLICATION DATE	NAME
VA	AC3	US 2003/0003574 A1	01/02/03	Toma, et al.
VA	AD3	US 2003/0003572 A1	01/02/03	Anderson, et al.
VA	AE3	US 2003/0017587 A1	01/23/03	Rader, et al.

RECEIVED
FEB 14 2003
TECH CENTER 1600/2900

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO
	AL						
	AM						
	AN						
	AO						
	AP						
	AQ						

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	AR	
	AS	
	AT	

EXAMINER

V. Afremova

DATE CONSIDERED

7-16-2003

PTO-1449 REPRODUCED

ATTORNEY DOCKET NO.
2831.2003-000

APPLICATION NO.
09/960,244

INFORMATION DISCLOSURE CITATION
IN AN APPLICATION

APPLICANT
Tony W. Ho, et al.

FILING DATE
September 21, 2001

CONFIRMATION NO.
4326

January 9, 2003

(Use several sheets if necessary)

U.S. PATENT DOCUMENTS

EXAM- INER INI- TIAL		DOCUMENT NUMBER	ISSUE DATE / PUBLICATION DATE	NAME
UA	AB3	US 2002/0168765 A1	November 14, 2002	Prockop et al.
	AB			
	AC			
	AD			
	AE			
	AF			
	AG			
	AH			
	AI			
	AJ			
	AK			

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO
	AL						
	AM						
	AN						
	AO						
	AP						
	AQ						

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	AR	
	AS	
	AT	

EXAMINER

V. Afonso

DATE CONSIDERED

7 - 16 - 2003

RECEIVED
JAN 15 2003
TECH CENTER 160012900

PTO-1449 REPRODUCED

ATTORNEY DOCKET NO.
2831.2003-000

APPLICATION NO.
09/960,244

INFORMATION DISCLOSURE CITATION
IN AN APPLICATION

November 1, 2002

(Use several sheets if necessary)

APPLICANT
Tony W. Ho, et al.

FILING DATE
September 21, 2001

CONFIRMATION NO.
4326

GROUP
1633

U.S. PATENT DOCUMENTS

EXAM- INER INI- TIAL	DOCUMENT NUMBER	ISSUE DATE / PUBLICATION DATE	NAME
LA	AA3 US 2002/0146821 A1	October 10, 2002	Sanchez-Ramos et al.
	AB		
	AC		
	AD		
	AE		
	AF		
	AG		
	AH		
	AI		
	AJ		
	AK		

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO
	AL					
	AM					
	AN					
	AO					
	AP					
	AQ					

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	AR	
	AS	
	AT	

EXAMINER

V. D. Freeman

DATE CONSIDERED

7-16-2003

RECEIVED
NOV 08 2002
TECH CENTER 1600/2900

PTO-1449 REPRODUCED

SECOND SUPPLEMENTAL
INFORMATION DISCLOSURE CITATION
IN AN APPLICATION

May 9, 2002

(Use several sheets if necessary)

ATTORNEY DOCKET NO.
831.2003-000

APPLICATION NO.
09/960,244

APPLICANT
Tony W. Ho, et al.

FILING DATE
September 21, 2001

GROUP
1633

U.S. PATENT DOCUMENTS

EXAM- INER INI- TIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE
VA	AA2	4,608,199	08/26/86	Caplan, et al.	530	414	
↑	AB2	4,609,551	09/02/86	Caplan, et al.	424	95	
	AC2	4,620,327	11/04/86	Caplan, et al.	632	10	
	AD2	5,226,914	07/13/93	Caplan, et al.	632	10	
	AE2	5,643,736	07/01/97	Bruder, et al.	435	4.21	
	AF2	5,733,542	03/31/98	Haynesworth, et al.	424	93.7	
	AG2	5,837,539	11/17/98	Caplan, et al.	435	332	
	AH2	5,855,619	01/05/99	Caplan, et al.	623	11	
	AI2	6,010,696	01/04/00	Caplan, et al.	424	93.7	
↓	AJ2	6,087,113	07/11/00	Caplan, et al.	435	7.1	
VA	AK2	6,174,333B1	01/16/01	Kadiyala, et al.	623	11.11	

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO
VA	AL2	WO 01/11011A2	15-FEB-01	PCT			
VA	AM2	WO 02/34889	02 MAY 02	PCT			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

VA	AZ3	Ashhurst, D.E., et al., "The collagens and glycosaminoglycans of the extracellular matrices secreted by bone marrow stromal cells cultured in vivo in diffusion chambers," J. Orthop Res 8(5):741-749 (1990).
↑	AR4	Ashton, B.A., et al., "Formation of Bone and Cartilage by Marrow Stromal Cells in Diffusion Chambers in Vivo," Clinical Orthopaedics and Related Research, 151:294-307 (1990).
	AS4	Ashton, B.A., et al., "Distribution of Fibroblastic Colony-Forming Cells in Rabbit Bone Marrow and Assay of their Osteogenic Potential by an in vivo Diffusion Chamber Method," Calcif Tissue Int. 36:83-86 (1984).
	AT4	Bab, I., et al., "Assessment of an in vivo Diffusion Chamber Method as a Quantitative Assay for Osteogenesis," Calcif Tissue Int 36:77-82 (1984).
VA	AU4	Bab, I., et al., "Osteogenesis in in vivo diffusion chamber cultures of human marrow cells," Bone and Mineral, 4:373-386 (1988).

EXAMINER

V. Afum

DATE CONSIDERED

7-16-2003

10/25/02

Sheet 2 of 3

PTO-1449 REPRODUCED

ATTORNEY DOCKET NO.
2831.2003-000

APPLICATION NO.
09/960,244

SECOND SUPPLEMENTAL
INFORMATION DISCLOSURE CITATION
IN AN APPLICATION

May 9, 2002

MAY 21 2002

(Use several sheets if necessary)

APPLICANT
Tony W. Ho, et al.

FILING DATE
September 21, 2001

GROUP
1633

MAY 23 2002

U.S. PATENT DOCUMENTS

TECH CENTER 1600/2000

EXAM- INER INI- TIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

VA	AV4	Bab, I., et al., "Ultrastructure of Bone and Cartilage Formed in vivo in Diffusion Chambers," <i>Clinical Orthopaedics and Related Research</i> , Section III:243-254 (1984)
N	AW4	Benayahu, D., et al., "Bone Marrow-Derived Stromal Cell Line Expressing Osteoblastic Phenotype in Vitro and Osteogenic Capacity In Vivo," <i>Journal of Cellular Physiology</i> 140:1-7 (1989).
	AX4	Budenz, R.W. et al., "Osteogenesis and Leukopoieses within Diffusion-Chamber Implants of Isolated Bone Marrow Subpopulations," <i>The American journal of Anatomy</i> 159:455-474 (1980).
	AY4	Diduch, D.R., et al, "Two cell lines from bone marrow that differ in terms of collagen synthesis, osteogenic characteristics, and matrix mineralization," <i>Journal of Bone & Joint Surgery</i> 75:92-105 (1993).
	AZ4	Friedenstein, A.J., et al., "Bone marrow osteogenic stem cells: in vitro cultivation and transplantation in diffusion chambers," <i>Cell Tissue Kinet.</i> 20:263-272 (1987).
	AR5	Gundle, R., et al., "Human Bone Tissue Formation in Diffusion Chamber Culture in vivo by Bone-Derived Cells and Marrow Stromal Fibroblastic Cells," <i>Bone</i> 16(6):597-601 (1995).
	AS5	Haynesworth, S.E., et al., "Cell Surface Antigens on Human Marrow-Derived Mesenchymal Cells are Detected by Monoclonal Antibodies," <i>Bone</i> 13:69-80 (1992).
	AT5	Haynesworth, S.E., et al., "Characterization of Cells with Osteogenic Potential from Human Marrow," <i>Bone</i> 13:81-88 (1992).
VA	AU5	Kataoka, H., et al., "Transplant of bone marrow and muscle-derived connective tissue cultures in diffusion chambers for bioassay of bone morphogenetic protein," <i>Clinical Orthopaedics and Related Research</i> 286:262-70 (1993).

EXAMINER

V. Affner

DATE CONSIDERED

7-16-2003

Paper #9

Sheet 3 of 3

PTO-1449 REPRODUCED

ATTORNEY DOCKET NO.
2831.2003-000

APPLICATION NO.
09/960,244

SECOND SUPPLEMENTAL
INFORMATION DISCLOSURE CITATION
IN AN APPLICATION

May 9, 2002

(Use several sheets if necessary)

APPLICANT
Tony W. Ho, et al.

FILING DATE
September 21, 2001

GROUP
163

RECEIVED

U.S. PATENT DOCUMENTS

MAY 23 2002

EXAM- INER INI- TIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE
			2			

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO
		2			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

VA	AV5	Krebsbach, P.H., et al., "Bone Formation in vivo: Comparison of Osteogenesis by Transplanted Mouse and Human Marrow Stromal Fibroblasts," Transplantation 63(8):1059-1069 (1997).
↑	AW5	Lennon, D.P., et al., "Cultivation of Rat Marrow-Derived Mesenchymal Stem Cells in Reduced Oxygen Tension: Effects on In Vitro and In Vivo Osteochondrogenesis," Journal of Cellular Physiology 187:345-355 (2001).
	AX5	Mardon, H.J., et al., "Development of osteogenic tissue in diffusion chambers from early precursor cells in bone marrow of adult rats," Cell Tissue Research, 250:157-165 (1987).
	AY5	Quinones, R.R., "Hematopoietic Engraftment and Graft Failure After Bone Marrow Transplantation," The American Journal of Pediatric Hematology/Oncology 15(1):3-17 (1993).
	AZ5	Thomson, B.M., et al., "Preliminary characterization of porcine bone marrow stromal cells: skeletogenic potential, colony-forming activity, and response to dexamethasone, transforming growth factor beta, and basic fibroblast growth factor," J. Bone Min Res 8(10): 1173-1183 (1993).
VA	AR6	Asselineau, D. et al., "Antibodies Specific for Papillary Fibroblasts as Markers for Skin Quality," Published Patent Application No: 2001/0036642A1, Published 11/01/01, Filed 11/29/00.

EXAMINER

V. Johnson

DATE CONSIDERED

7-16-2003

Paper #8

PTO-1449 REPRODUCED

ATTORNEY DOCKET NO.
2831.2003-000

APPLICATION NO.
09/960,244

SUPPLEMENTAL INFORMATION
DISCLOSURE CITATION
IN AN APPLICATION

APPLICANT
Tony W. Ho, et al.

February 19, 2002

FILING DATE
September 21, 2001

GROUP
1633

(Use several sheets if necessary)

U.S. PATENT DOCUMENTS

EXAM- INER INI- TIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE
VA	AK	5,716,616	02/10/98	Prockop, et al.	424	93.7	—

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO
VA	AN	WO 99/43286	02-SEP-99	PCT	///		
VA	AO	WO 00/24261	04-MAY-00	PCT	///		
VA	AP	WO 01/34167 A1	17-MAY-01	PCT	///		
VA	AQ	WO 01/59072 A1	16-AUG-01	PCT	///		

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	AR	
	AS	
	AT	

EXAMINER

V. H. Brown

DATE CONSIDERED

7-16-2003

RECEIVED
MAR 06 2002
TECH CENTER 1600/2900